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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/272,807	03/19/1999	AVNER BEN-DOR	003829.P002	6116

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EXAMINER

TRAN, MAIKHANH

ART UNIT	PAPER NUMBER
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2664

DATE MAILED: 06/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/272,807

Applicant(s)

BEN-DOR ET AL.

Examiner

MAIKHANH T. TRAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-21, 23-27, 29-32, 34-36 and 38-52 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

- 5) ☒ Claim(s) 23-27, 29-32, 34-36, 38, 39 and 49-55 is/are allowed.

- 6) ☐ Claim(s) 3-13, 15-18, 19-21, 41-45, 47 and 48 is/are rejected.

- 7) ☐ Claim(s) 2, 14, 40 and 46 is/are objected to.

- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Continued Prosecution Application

1. The request filed on 3/22/02 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/272,807 is acceptable and a CPA has been established. An action on the CPA follows.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 11-12, 3-7 and 41-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Kirby et al (U.S. 5,898,784).

- As to claim 11, Kirby et al., in figs. 2-3, 8 and the description associated with the figs., disclose a system and a method of controlling devices across a network, the system comprising:

- * a network (152) having a host (148) coupled thereto, the host executing software to generate packets for communication on the network;
- * a bus (154) with a bus device (156, 158, 162) coupled thereto;
- * an interface (146) coupling the network to the bus, the interface and the host coordinating to tunnel bus events over the network between the host and the bus device by encapsulating bus events into packets associated with a network protocol and transferring the encapsulated bus events over the network and subsequently decapsulating the bus events to recreate the bus events, wherein the host runs an application (API) that generates packets for the bus device and relies on an operating system that includes a driver for the bus device that issues the bus device packets and redirects the bus device packets to a network stack that encapsulates the bus device packets to create a network packet and sends the network packet to a remote bus device via the interface, the interface thereafter decapsulating the network packet to obtain the bus device packet and forwarding the bus device packet to the bus device.

-As to claim 12, in Kirby et al., the bus device generates bus device packets for transport to the host and sends the bus device packets on the bus, the interface (146) encapsulating the bus device packets into a network packet and forwards the network packet to the host, the host (148) executing a network driver that decapsulates the network packet, identifies bus device packets (policy id) therein and redirects the bus device packets to a bus device driver running thereon.

- As to claims 3-5 and 41-43, the claimed limitations are encompassed in Kirby et al.

- As to claims 6-7 and 44, the claimed limitations are standard in the art.

4. Claims 19 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Batz et al (U.S. 5,918,022).

- As to claims 19 and 21, Batz et al, in fig. 5 and the description associated with the figure, disclose a system and a method of controlling devices across a network, the system comprising:

- * a network (520) having a host (524) coupled thereto, the host executing software to generate packets for communication on the network;
- * a bus with a bus device (502/504) coupled thereto;
- * an interface (514) coupling the network to the bus, the interface and the host coordinating to tunnel bus events over the network between the host and the bus device while preserving one or more local bus properties by encapsulating bus events into packets associated with a network protocol and transferring the encapsulated bus events over the network.

Although Batz et al. do not clearly teach the step of subsequently decapsulating the bus events to recreate the bus events at a remote site transparently to a user using information in the header of the packet, this limitation is standard in the art, therefore it is inherent that the teaching in Batz et al encompasses the claimed limitations in claims 19 and 21.

Note that: the term "bus events" is not defined in the claims, thus "bus events" can be considered as packets transmitted on the bus. Besides, the capability or speed of the

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local bus is always unchanged, therefore the teaching in Batz meets the claimed limitations.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-10, 13, 15-18, 45 and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirby et al (U.S. 5,898,784) as applied to claims 11-12 above, and further in view of Klein et al (U.S. 6,085,328).

- As to claims 8-9 and 15-18 and 47-48, Kirby et al disclose a system as discussed in claim 11 above. Kirby et al, however, do not teach that the bus comprises a serial bus (USB) or a parallel bus (IEEE-1394). Klein et al, in col. 4, lines 18-31, teach that IEEE-1394 and USB bus are widely utilized as bus system in communication systems to handle a large number of different connections (USB) at a high data rate (IEEE-1394). Therefore it would have been obvious to one skilled in the art at the time the invention was made to apply the teaching of Klein et al in Kirby et al to enhance the connection service in Kirby et al.

- As to claim 10, when tunneling applied for different communications networks, it is a need for identifying packet type (data or control information) and transaction type

(protocol network) in the tunneling header. Therefore it would have been obvious to one skilled in the art to apply that method in Kirby et al to enhance Kirby et al.' teaching.

- As to claims 13 and 45, since the claimed remote peripheral server inside the interface has no specific functions, it can be considered as any element inside the interface (146) in Kirby et al.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Batz et al (U.S. 5,918,022).

- As to claim 20, Batz et al disclose a method as discussed in claim 19 above. Although Batz et al do not fairly suggest that the remote site comprises a similar bus and similar bus device to that which generated the bus events, it is obvious to ones skilled in the art to set up the remote site with similar bus and similar bus device to that which generated the bus events so that two bus devices belong to two different networks can communicate to each other over a network between said two different networks to enhance the teaching in Batz et al.

Allowable Subject Matter

8. Claims 2, 14, 40 and 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 30, 23-27, 29, 31-32, 49-52, 38, 34-36, 39, 53-55 are allowed.

10. The following is an examiner's statement of reasons for allowance:

- As to claims 2 and 40, the prior art fails to teach that the bus device generates isochronous data and the network operates asynchronously, such that isochronous data is transported over an asynchronous network.

- As to claims 14 and 46, the prior art fails to teach that the network comprises an IP Ethernet network.

- As to claims 30, 23-27, 29, 31-32, 49-52, 38, 34-36, 39, 53-55, the prior art fails to teach that the network is an IP Ethernet network as recited in claims 30-31 and 38-39.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MAIKHANH T. TRAN whose telephone number is 703-308-7911. The examiner can normally be reached on MON-FRI 8:30AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WELLINGTON CHIN can be reached on 703-305-4366. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9314 for regular and After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Maikhanh Tran

June 2, 2002

A handwritten signature in black ink, appearing to read 'W. Chin', with a long horizontal stroke extending to the right.

WELLINGTON CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600